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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,250	03/14/2001	Osamu Ueno	108910	1313
25944	7590	07/13/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER DINH, TUAN T	
			ART UNIT 2841	PAPER NUMBER

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,250

Applicant(s)

UENO ET AL.

Examiner

Tuan T. Dinh

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,8,9 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 3,15-20,22-24,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,21,25 and 26 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election with traverse of Specie I (figure 1, claims 1-3, 5-9, 21, 25-26) in the reply filed on 04/25/05 is acknowledged. The traversal is on the ground(s) that the election of species requirement is improper because (a) Specie I does not explicitly exclude any features of Specie II, (b) Specie III is not mutually exclusive from either of Species I or II, and (c) figures 14A-14D are separate embodiment from the Species I-III because the figures 14A-14D require a single power supply region and could be read on the first, second, and third embodiments of Species I-III. This is not found persuasive because in a specification, pages 17-30, applicant is clearly distinct there are three different embodiments well illustrated in the specification. The Specie I (first embodiment) has a structure differing from the Species II and III. The specification is described the third embodiment from page 25, third paragraph through page 30, second paragraph that includes figures 4-5, 7, and 14, and figure 14 (14A-14D) is illustrated just a plane view of a power supply surface 11 such a single power supply surface of the power supply surface 11 of the third embodiment. Even though the figures 14A-14D are structure differing from figures 4-5, and 7, but they did contain as described in the specification in the third embodiment. Therefore, the figures 14A-14D are distinct embodiment from the Species I and II.

Claim 7 has been canceled from previous Office action.

Claims 2-3 are withdrawn from previous Office action, and now being rejoined.

Claim 3 recites of "...a circuit...forms a parallel circuit" does not read on Specie I

The requirement is still deemed proper and is therefore made FINAL. Therefore, claims 3, 15-20, 22-24, and 27-28 are withdrawn from further consideration as being drawn to non-subject matter.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

Claim 1, lines 3-4, it is unclear. The phrase of "at least one region...has a shape that may be consider a track" is confusing because the term "may be consider" is not a positive claim.

Examiner suggests the phrase should be changed to --...that being formed a track" for more clear.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-6, 8, 21, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lockwood et al. (U.S. Patent 5,898,576) in view of Price et al. (U.S. Patent 5,587,887).

As to claims 1 and 21, Lockwood discloses a circuit board device (30-figure 3, column 4, lines 10-11) as shown in figures 3-13 having a power supply region (32, column 4, line 1) and a ground region (34, column 4, line 1) that are adjacent, wherein, when at least one region of the power supply region (32) and the ground region (34) that are adjacent (column 4, lines 39-40) has a shape that may be considered a track (transmission lines) having a length that is larger than its width (figures 4-5 show strips 38 or 40, each having length that is larger than its widths 42 or 44),

a terminal element (48, column 4, line 50) having an impedance (R) at is substantially equal to a characteristic impedance (Z_0) between said regions is connected between the power supply region and the ground region at an end of said at least one region (column 5, lines 20-23).

Lockwood does not disclose the power supply region divided into two or more power supply regions by a slit, and the slit having a T-shape.

Price et al. shows a multiplayer circuit board disclosed in figures 1, and 2B comprising a power supply region (30), the power supply region being divided or slit into two or more power supply regions (24-26), the slit having T-shape.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the slit having T-shape for dividing a power supply into two or more regions, as taught by Price et al., employed in the device of Lockwood in order to provide a desired voltage supply plane configuration for a printed circuit board.

As to claim 2, Lockwood further comprising a dielectric layer (36-figure 3) interposed therebetween and substantially oppose one another and overlap.

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As to claim 5, Lockwood discloses a circuit board device as shown in figures 3-13 wherein the terminal element includes a capacitor (48.2, column 5, line 9).

As to claim 6, Lockwood discloses a circuit board device as shown in figures 6-7 wherein the terminal element includes a resistor (48.3) and a capacitor (48.2) which are series-connected.

Regarding claim 8, applicant recites in claim 1 sets forth the impedance (Z_r) of the terminal element is substantially equal to the characteristic impedance (Z_e), so that the mathematical of Z_r/Z_e is approximate or equal 1. Thus, the $0.1 \leq (Z_r/Z_e) \leq 10$ when the impedance (Z_r) is set (fix) then Z_r/Z_e would be satisfy in a range of (0.1-10) as taught by Lockwood.

As to claim 25, Lockwood discloses the connection of the terminal element (48) between the power and ground regions at the end of said at least one region.

As to claim 26, Lockwood discloses an outer periphery of said power and ground regions (32, 34) is free from connection by said terminal element (48), see column 6, lines 13-23, figure 8.

Allowable Subject Matter

5. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

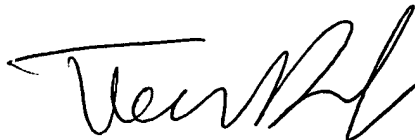
6. Applicant's arguments with respect to claims 1-2, 5-6, 21, 25-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan Dinh
July 11, 2005.